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U.S. PTO

PTO/SB/05 (01-04)

Approved for use through 07/31/2006. OMB 0651-0032

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UTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

KSC-12490

First Inventor

Jesus Dominguez et al.

Title

Optimal Binarization of Gray-Scaled  
Digital Images Via Fuzzy Reasoning

Express Mail Label No.

ER 706306597 US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 24]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
5. Oath or Declaration [Total Sheets 2]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
- i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s)  
name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ Paper
- c. ☐ Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement of Attorney (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☒ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Cover Letter.....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation☐ Divisional☐ Continuation-in-part (CIP)

of prior application No.: .....

Prior application information:

Examiner .....

Art Unit: .....

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS



Customer Number:

25190

OR ☐

Correspondence address below

Name

Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

Randall M. Heald

Registration No. (Attorney/Agent)

28,561

Signature

Randall M. Heald

Date

February 11, 2004

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

22390 U.S. PTO

10/779551



021104

**NONPUBLICATION REQUEST  
UNDER  
35 U.S.C. 122(b)(2)(B)(i)**

First Named Inventor	Jesus Dominguez et al.		
Title	Optimal Binarization of Gray-Scaled Digital Images Via Fuzzy Reasoning		
Attorney Docket Number	KSC-12490		

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

I hereby request that the attached application not be published under 35 U.S.C. 122(b).

February 11, 2004  
Date



Signature

321-867-7214

Telephone number

Randall M. Heald, Reg. No. 28,561

Typed or printed name

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing**.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

This collection of information is required by 37 CFR 1.213(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

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National  
Aeronautics and  
Space  
Administration

Patent Application

KSC-12490  
(NASA Case No.)

## Letter Transmitting Patent Application

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

THE COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, DC 20231

Sir:

Transmitted herewith for filing is the Patent Application of:

Applicant: Jesus Dominguez et al.  
Inventor(s): Jesus Dominguez and Steve Klinko

Entitled: Optimal Binarization of Gray-Scaled Digital Images Via Fuzzy Reasoning

Enclosed are:

- ☒ Specification and claims ☒ 4 sheets of drawing  
☒ Declaration ☐ Power of Attorney  
☐ Assignment of the invention to the National Aeronautics and Space Administration  
☐ License of the invention to the National Aeronautics and Space Administration  
☐ Application Data Sheet  
☐ Preliminary Amendment  
☒ Information Disclosure Statement  
☒ Nonpublication Request and Certification (PTO/SB/35 or equivalent)  
☐ International application under the PCT (see PCT/RO/101,XII checklist)

The fee has been calculated as shown below:

FOR (1)	CLAIMS FILED NUMBER		RATE (4)	FEE (5)
	PAID FOR (2)	EXTRA (3)		
TOTAL CLAIMS	20	0	X 18.00	\$0.00
INDEPENDENT CLAIMS	3	1	X 86.00	\$86.00
BASIC FEE (Minimum amount required)				\$770.00
TOTAL FILING FEE				\$856.00

Please charge our Deposit Account No. 14-0116 in the amount shown as the total filing fee. The Commissioner is hereby authorized to charge an additional fee which may be required to effect the filing of this application under 37 CFR 1.16, or credit any overpayment to Deposit Account No. 14-0116.

Feb 12, 2004  
(Date)

Randall M. Neale Reg. 28,561  
(Attorney of Record) (Reg. No.)

NOTE: This form is to be used when filing a new or original application.

NASA Case No. KSC-12490

Patent Application

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Jesus Dominguez et al. )  
)  
)  
Serial No.: Unknown )  
)  
Filed: Herewith )  
)  
Title: Optimal Binarization of Gray-Scaled )  
Digital Images Via Fuzzy Reasoning )

LETTER

Mail Stop Patent Applications  
Attn: Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The enclosed application is being filed in accordance with 37 CFR 1.53(b) in order to obtain a filing date of **February 11, 2004**. The application is being sent by EXPRESS MAIL "Post Office to Addressee" under Certificate of Mailing.

Respectfully submitted,



Randall M. Heald, Reg. No. 28,561  
Patent Counsel

Mailing Address:

Patent Counsel  
Office of Chief Counsel  
NASA, John F. Kennedy Space Center  
Mail Code: CC-A  
Kennedy Space Center, Florida 32899  
Telephone (407) 867-7214

Express Certificate of Mailing

I hereby certify that the attached application "Optimal Binarization of Gray-Scaled Digital Images Via Fuzzy Reasoning" is being deposited with the United States Postal Service on **February 11, 2004**, as Express Mail "Post Office to Addressee" under Certificate No. ER 706306597 US in an envelope addressed to: Mail Stop Patent Applications, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
Carol Anne Dunn/Paralegal Specialist